

WHAT IS CLAIMED IS:

1. A vehicular diagnostic tool for receiving vehicular diagnostic codes from a vehicle on board computer, and translating the diagnostic codes into diagnostic descriptive data comprising:

an input port for receiving vehicular diagnostic codes output from a vehicle under test;

a code parser for parsing the received diagnostic codes into diagnostic code segments;

a code translator for correlating diagnostic code segments to corresponding diagnostic descriptor segments; and

a combiner for combining the code descriptor segments to derive composite diagnostic code descriptors, the composite code descriptors being collectively representative of the received diagnostic code.

2. The diagnostic tool as recited in Claim 1 wherein the parser is operative to parse received diagnostic codes into generic code segments and specific code segments.

3. The diagnostic tool as recited in Claim 2 wherein the code translator includes a look-up table including generic descriptor segments and specific descriptor segments.

4. The diagnostic tool as recited in Claim 2 wherein the generic descriptor segments correspond to the generic diagnostic code segments and the specific descriptor segments correspond to the specific diagnostic code segments.

5. The diagnostic tool as recited in Claim 3 wherein the combiner combines generic descriptor segments and specific descriptor segments to derive the composite code descriptors.

6. A method of processing vehicular diagnostic codes to derive descriptive diagnostic information comprising:

receiving vehicular diagnostic codes;

parsing the received diagnostic codes to derive diagnostic code segments;

translating the diagnostic code segments into corresponding diagnostic descriptor segments; and

combining the diagnostic descriptor segments to derive a composite code descriptor corresponding to the received diagnostic codes.

7. The method as recited in Claim 6 further comprising the step of storing diagnostic code descriptors segments for a plurality of vehicle types.

8. The method as recited in Claim 7 further comprising the step of accessing descriptor code segments in response to identification of a type of vehicle under test.

9. The method as recited in Claim 8 wherein identification of the type of vehicle under test proceeds independent of user input.

10. The method as recited in Claim 9 wherein identification of the type of vehicle under test proceeds by sequential generation of a plurality of linking commands, each linking command being formatted in accordance with an associated vehicle protocol.

11. The method as recited in Claim 10 wherein a protocol associated with the vehicle under test is identified and only code descriptor segments corresponding to the identified protocol are accessed by the code translator.

12. The method as recited in Claim 6 wherein the step of parsing comprises parsing the received diagnostic code into generic code segments and specific code segments.

13. The method as recited in Claim 12 wherein the step of translating comprises translating code segments to derive generic descriptor segments and specific descriptor segments.

14. The method as recited in Claim 13 wherein the step of combining descriptor segments comprises combining generic descriptor segments and specific descriptor segments.

15. A handheld electronic automobile diagnostic device for receiving and displaying automobile diagnostic codes and affiliated descriptors, the device comprising:

a handheld unit containing a central processor unit, ROM, SRAM, flash memory, an input port, keypad, and display; and

a computer readable medium for displaying automobile diagnostic codes and affiliated descriptors of the diagnostic codes on said display, the computer readable medium comprising:

a source code segment comprising a list of descriptors segments with associated unique symbol(s);

a source code segment comprising a list of diagnostic codes with an affiliated composite code defined by the unique symbol(s);

a source code segment for receiving at least one diagnostic code from an on-board computer of a vehicle into the device;

a source code segment for identifying the composite code that correlates to the received diagnostic code;

a source code segment for identifying descriptor table(s) that correlate to the received diagnostic code;

a source code segment for translating the unique symbols from the composite code to correlated descriptors;

a source code segment for combining the correlated descriptors to derive a descriptor reflective of the received diagnostic code; and

a source code segment displaying the derived descriptor on the display.

16. The device according to Claim 15, wherein the descriptor segment table(s) are identified and searchable by the diagnostic code.

17. The device according to Claim 15, wherein the received at least one diagnostic code is stored in the SRAM.

18. The device according to Claim 15, wherein the descriptor table(s) and the composite code table(s) are stored within said flash memory.

19. The device according to Claim 15, further comprising a source code segment for copying the identified descriptor table(s) into SRAM of the device.

20. A method for displaying automobile diagnostic codes and affiliated descriptors of the diagnostic codes on a handheld electronic automotive diagnostic device, the method comprising:

generating a descriptor segment table(s) comprising a list of descriptor segments with an associated unique symbol(s);

generating a composite code table(s) which includes a comprehensive list of diagnostic codes with an affiliated composite code defined by the unique symbol(s);

storing the descriptors table(s) and the composite code table(s) in a flash memory of the device;

receiving at least one diagnostic code from an on-board computer of a vehicle into the device;

identifying the composite code descriptor table(s) that correlates to the received diagnostic code;

translating the unique symbols from the composite code to correlated descriptors;

combining descriptors to derive a descriptor reflective of the received diagnostic code;

displaying the derived descriptor on a display of the device.

21. The method according to Claim 20, wherein the descriptor segment table(s) are identified and searchable by the diagnostic code.

22. The method according to Claim 20, wherein the received at least one diagnostic code is stored in SRAM of the device.

23. The method according to Claim 20, wherein the memory that the descriptor table(s) and the composite code table(s) is stored within flash memory of the device.

24. The method according to Claim 20, further comprising copying the identified descriptor table(s) to SRAM of the device.

25. A computer readable medium storing a program for receiving vehicular diagnostic codes from a vehicle on-board computer, and translating the diagnostic codes into diagnostic descriptive data in a handheld vehicle diagnostic device, the medium comprising:

a source code segment for receiving vehicular diagnostic codes output from a vehicle under test;

a source code segment for parsing the received diagnostic codes into diagnostic code segments;

a source code segment for translating diagnostic code segments into corresponding diagnostic descriptor segments; and

a source segment for combining the code descriptor segments to derive composite diagnostic code descriptors, the composite code descriptors being collectively representative of the received diagnostic code.

26. The medium according to Claim 25, wherein the source code for translation is stored in flash memory.

27. The medium according to Claim 25, wherein the received diagnostic codes are stored SRAM.

28. The medium according to Claim 225, wherein a specific portion of the source code for translating diagnostic code is copied to the SRAM.

29. A computer readable medium storing a program in a handheld diagnostic tool, the medium comprising:

a source code segment containing a plurality of libraries, each library containing a list of descriptive terms or phrases, wherein each descriptive term or phrase has an affiliated unique symbol assigned thereto;

a source code segment storing a data matrix which contains a list of diagnostic codes, wherein each diagnostic code has a corresponding codified representation which comprises at least one of the affiliated unique symbols;

a source code segment which checks a memory for stored diagnostic codes downloaded from a vehicle on-board computer;

a source code segment which separately correlates each of the stored diagnostic codes to a specific library;

a source code segment which decodes the codified representation for each stored diagnostic code by replacing each unique symbol with the affiliated descriptive terms or phrases from the specific library.

30. The medium according to Claim 29, wherein the source code segment containing the plurality of libraries is stored in flash memory.

31. The medium according to Claim 29, wherein the source code segment for storing the data matrix is stored in flash memory.

32. The medium according to Claim 29, wherein the memory for stored diagnostic codes downloaded from the vehicle is SRAM.

33. The medium according to Claim 28, wherein the specific library is copied to the SRAM.